

## Product Overview

### FAN102: Primary-Side-Regulation PWM Controller

For complete documentation, see the data sheet.

The primary-side PWM controller significantly simplifies power supply design that requires CV and CC regulation capabilities. The FAN102 controls the output voltage and current precisely with the information in the primary side of the power supply, not only removing the output current sensing loss, but eliminating all secondary feedback circuitry. The green-mode function with a low startup current (10 $\mu$ A) maximizes the light-load efficiency so the power supply can meet stringent standby power regulations. Compared with a conventional secondary-side regulation approach, the FAN102 can reduce total cost, component count, size, and weight; while simultaneously increasing efficiency, productivity, and system reliability.

### Features

- Constant-Voltage (CV) and Constant-Current (CC) Control without Secondary-Feedback Circuitry
- Green Mode: Frequency Reduction at Light Load
- Fixed PWM Frequency at 42kHz with Frequency Hopping to Solve EMI Problem
- Cable Voltage Drop Compensation in CV Mode
- Low Startup Current: 10 $\mu$ A
- Low Operating Current: 3.5mA
- Peak-Current-Mode Control in CV Mode
- Cycle-by-Cycle Current Limiting
- V<sub>DD</sub> Over-Voltage Protection with Auto-Restart
- V<sub>DD</sub> Under-Voltage Lockout (UVLO)

For more features, see the data sheet

### Applications

- Mobile Handsets
- Lighting

### Part Electrical Specifications

Product	Compliance	Status	Topology	Phases	Control Mode	V <sub>CC</sub> Min (V)	V <sub>CC</sub> Max (V)	f <sub>sw</sub> Typ (kHz)	Package Type
FAN102MY	Pb-free Halide free	Active	Step-Up/Step-Down/SEPIC	1	Current Mode	15	17	42	SOIC-8

For more information please contact your local sales support at [www.onsemi.com](http://www.onsemi.com).

Created on: 2/21/2019